Alternative Fuel Sources

Ot

Clean Coal Is Not An Oxymoron

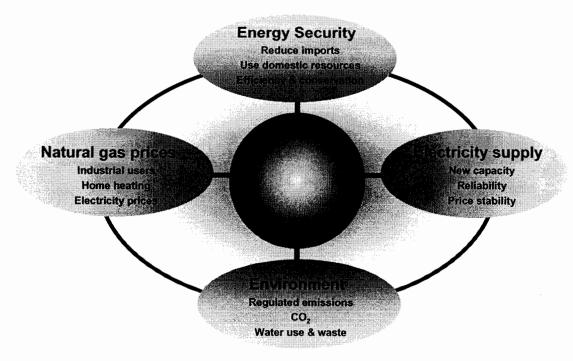
Wisconsin Governor's IGCC Task Force Wabash Tour

Feburary 13,2006

David Hadley

Commissioner Indiana Utility Regulatory Commission dhadley@urc.state.in.us

Energy Policy Issues

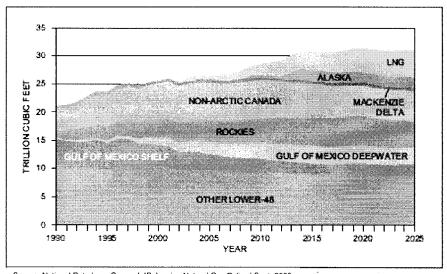


National Energy Policy

- Use more natural gas
- Since 1993 over 90% of all new generation is gas
- Demand now exceeding U.S. supply
- Deny access to "new gas"
- Depend on LNG

U.S. Natural Gas Supply

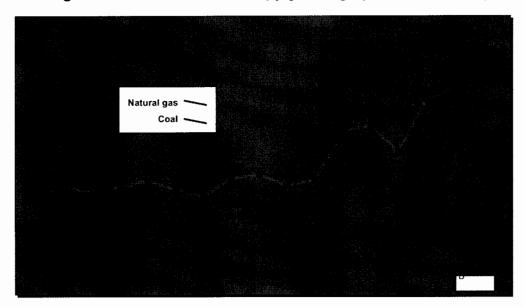
Most incremental supply after 2005 projected to come from LNG imports & Alaska pipeline



Source: National Petroleum Counsel, "Balancing Natural Gas Policy,' Sept. 2003

Natural Gas Challenge

High demand + uncertain supply = high prices & volatility



World Coal Reserves

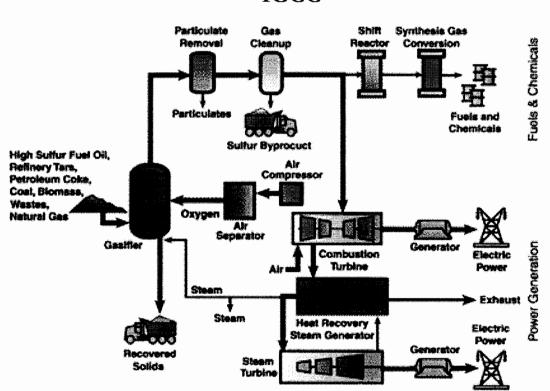


In contrast U.S. holds:

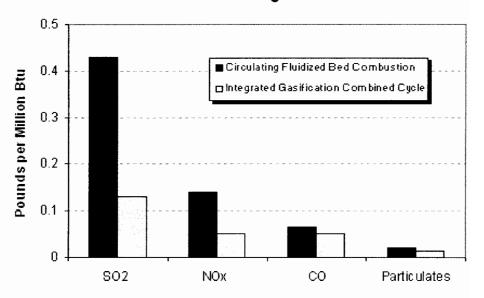
- -- 2% of world oil reserves
- -- 3% of world natural gas reserves

"The best way to predict the future...
is to create it."

Integrated Gasification Combined Cycle IGCC

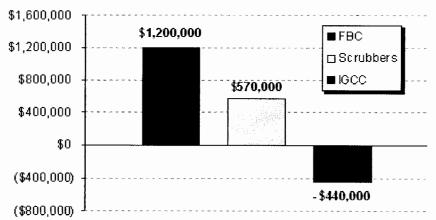


Air Emissions of IGCC vs. Fluidized Bed Power Generation using Petroleum Coke



Net Annual Solid Waste Disposal Costs of Power Generation Technologies Using Petroleum Coke

(Dollars per year)



IGCC Offers Lowest Cost Mercury Removal

(Dollars per lb. Mercury removed)
\$40,000
\$37,800

\$30,000
\$20,000
\$10,000
\$3,620
\$
IGCC
PC

IGCC Technology Offers the *Potential* to Significantly Improve:

- Generation Efficiency
- Utilization of Existing Coal Infrastructure
- Reduce Air Emissions
- Spinning Reserves
- By-Products
- Customer Satisfaction
- Legal Position
- Regulatory Certainty
- Stranded Assets

While at the Same Time:

- Help Reduce Pressure on Natural Gas
- Helps Improve Supply & Price for Other Sectors of Economy
- Helps Improve Economic Development
- Helps Maintain U.S. Jobs
- Help Reduce U.S. Dependence on Imported Fuels
- Support National Energy & Homeland Security
- Sustainability is to create value for all shareholders.

Triple
Bottom Line

Environment

Society

Joseph E.Fiksel

